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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,066	05/07/2001	Tongwei Liu	HP-10012392	2859

7590 03/22/2007 HEWLETT-PACKARD COMPANY Intellectual Property Administration P.O. Box 272400 Fort Collins, CO 80527-2400	**EXAMINER** LE, MIRANDA

ART UNIT	PAPER NUMBER
2167	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	09/851,066	LIU ET AL.
Office Action Summary	Examiner	Art Unit	
	Miranda Le	2167	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2006*.

2a)☒ This action is. **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to Amendment, filed 12/18/2006.

2.   Claims 23-38 are pending in this application. Claims 23, 29, 34 are independent claims.

In the Amendment, claims 23-38 have been added, and claims 1-22 have been cancelled.   This

action is made Final.

3.   The objection to the specification (claim objection) of the invention has been withdrawn

in view of the amendment.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or
> any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and
> requirements of this title.

5.   Claims 34-38 are rejected under 35 U.S.C. § 101 because the claimed invention is directed

to non-statutory subject matter.

In the specification, paragraph [0022], [0025, applicant intends for the medium to cover

signals, waves, transmission media which is reasonably interpreted as a form of energy. A ·

computer-usable medium including a carrier wave, or signal, is non-statutory subject matter as

set forth in MPEP 2106 (IV)(B)(2)(a). As such, claim 34 is not limited to tangible embodiments,

instead being sufficiently broad so as to encompass intangible media such as transmission media;

the claim is not limited to statutory subject matter and is therefore non-statutory.

Claims 35-38 incorporate the deficiencies of claim 34; and do not add tangibility to the

claimed subject matter, they are likewise rejected. ·

Applicant is suggested to amend claim 34 as "A computer-readable storage medium" in

order to overcome the rejection.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before
the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention
by the applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States only
if the international application designated the United States and was published under Article 21(2) of such
treaty in the English language.

7.   Claims 23-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Srivastava (US

Patent No. 6,563,952).

Srivastava anticipated independent claims 23, 29, 34 by the following:

As per claim 23, Srivastava teaches a method, comprising:

a processor *(Fig. 1)* receiving a record comprising a plurality of variables *(i.e. entries,*

attributes, col. 3, lines 13-28), wherein said record comprises information for at least some of

said variables *(Figs. 3,4);*

said processor determining if said record comprises information for variables sufficient

for use by a pre-computed first classification tool adapted to classify said record *(i.e. identifies*

the use of large item sets, col. 3, lines 40-55);

if said record comprises information for variables sufficient for use by the pre-computed

first classification tool adapted to classify said record, said processor using said first

classification tool to classify said record *(i.e. Steps 102, 104, 106, 110, 113, 114; Steps 102, 104,*

106, 112, 113, 114; Steps 102, 104, 106, 110, 112, 113, 114; Fig. 2, col. 3, line 40 to col. 4, line

6); and

if said record does not comprise information for variables sufficient for use by the pre-

computed first classification tool such that the first classification tool cannot be used to classify

said record, then said processor building a second classification tool to classify said record and

classifying said record using said second classification tool *(i.e. neither large item sets and*

clusters; Steps 102, 104, 106, 113, 114, Fig. 2, col. 3, line 40 to col. 4, line 6).

As to claims 29, 34, Srivastava teaches a computer system comprising:

a bus *(Fig. 1); and*

a processor *(Fig. 1)* coupled to said bus, said processor executing a method for

classifying an information record, said method comprising:

receiving from the bus a record a record comprising a plurality of variables *(i.e. entries,*

attributes, col. 3, lines 13-28), wherein said record comprises information for at least some of

said variables *(Figs. 3, 4);*

determining if said record comprises information for variables sufficient for use by a pre-

computed first classification tool adapted to classify said record *(i.e. identifies the use of large*

item sets, col. 3, lines 40-55);

if said record comprises information for variables sufficient for use by the pre-computed

first classification tool adapted to classify said record, using said first classification tool to

classify said record *(i.e. Steps 102, 104, 106, 110, 113, 114; Steps 102, 104, 106, 112, 113, 114;*

Steps 102, 104, 106, 110, 112, 113, 114; Fig. 2, col. 3, line 40 to col. 4, line 6); and

if said record does not comprise information for variables sufficient for use by the pre-

computed first classification tool adapted to classify said record, then building a second

classification tool to classify said record and classifying said record using said second

classification tool *(i.e. neither large item sets and clusters; Steps 112, 104, 106, 113, 114, Fig. 2,*

col. 3, line 40 to col. 4, line 6).

As to claims **24, 30, 35,** Srivastava teaches said processor building said second

classification tool comprises using only those variables that have information present in said

received record to build said second classification tool *(i.e. neither large itemsets and clusters;*

Steps 112, 104, 106, 113, 114, Fig. 2, col. 3, line 40 to col. 4, line 6).

As to claims **25, 31, 36,** Srivastava teaches said first classification tool and said second

classification tool are a first classification tree and a second classification tree, respectively *(col.*

4, lines 35-67).

As to claims **26, 32, 37,** Srivastava teaches computing said second classification tree

using information for only a subset of said plurality of variables *(Fig. 3).*

As to claims 27, 33, 38, Srivastava teaches pre-computing said first classification tree using a substantially complete set of information for said plurality of variables *(col. 3, line 13 to col. 4, line 6).*

As per claim 28, Srivastava teaches said record comprises customer information for a client, and wherein said method further comprises selecting content for delivery to a customer according to said classifying of said record *(Fig. 1; col. 1, lines 31-55; col. 4, line 17-28).*

Response to Arguments

8.   Applicant's arguments filed 12/18/2006 have been fully considered but they are not persuasive.

Applicant argues that:

Srivastava's reference does not teach/suggest claim 23's feature of :

if said record comprises information for variables sufficient for use by a pre-computed first classification tool adapted to classify said record;

if said record comprises information for variables sufficient for use by the pre-computed first classification tool adapted to classify said record, said processor using said first classification tool to classify said record; *and*

if said record does not comprise information for variables sufficient for use by the pre-computed first classification tool such that the first classification tool cannot be used to classify said record, then said processor building a second classification tool to classify said record and classifying said record using said second classification tool.

The Examiner respectfully disagrees for the following reasons:

As discussed in the Office Action, Srivastava teaches:

if said record comprises information for variables sufficient for use by a pre-computed first classification tool adapted to classify said record *(i.e. identifies the use of large item sets, col. 3, lines 40-55)*;

if said record comprises information for variables sufficient for use by the pre-computed first classification tool adapted to classify said record, said processor using said first classification tool to classify said record *(i.e. Steps 102, 104, 106, 110, 113, 114; Steps 102, 104, 106, 112, 113, 114; Steps 102, 104, 106, 110, 112, 113, 114; Fig. 2, col. 3, line 40 to col. 4, line 6); and*

if said record does not comprise information for variables sufficient for use by the pre-computed first classification tool such that the first classification tool cannot be used to classify said record, then said processor building a second classification tool to classify said record and classifying said record using said second classification tool *(i.e. neither large item sets and clusters; Steps 102, 104, 106, 113, 114, Fig. 2, col. 3, line 40 to col. 4, line 6).*

More specifically, as shown in Fig. 2, the steps 102-112 correspond to the claimed limitation*" a pre-computed first classification tool"*.

And the step 113 of Fig. 2 is interpreted as *"building a second classification tool"*.

It is noted that steps 102-112 disclosed in detail as "determining which itemsets are large itemsets, and then using large itemsets as additional attributes on which a tree node's splitting criterion might be based" (col. 2, lines 23-30), hence, this could be interpreted as a pre-computed tool for preparing a set or a subset of attributes in order to build a classification tool (i.e. large

itemsets are used as additional attributes on which to base the decision structure, col. 2, lines 2-13; or classified based on the m nearest neighbors of an entry, col. 2, lines 13-18).

Further, Srivastava teaches the step of making a decision for sufficiently using a classification tool as "determining which itemsets are large itemsets, and then using large itemsets as additional attributes on which a tree node's splitting criterion might be based", col. 2, lines 23-30.

Therefore, it is the examiner's position that Srivastava does read on the claimed limitation as discussed.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
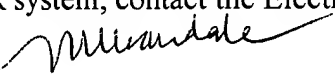
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.
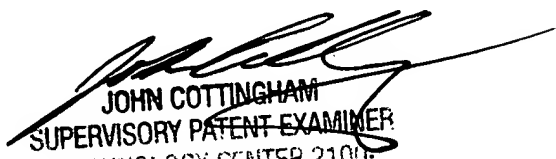
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
March 17, 2007

JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
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